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Using Physical Exercises to Improve Mental Health

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Abstract

In recent years there has been an increased interest in the impact of physical exercises on the wellbeing of people with mental health problems and the prevention of mental disorders. In this framework, our paper presents the main theoretical and methodological issues concerning the use of physical exercises for the improvement of mental health. Although at international level there is a clear specialization of the sports professionals, this category is not found in Romania. This paper reports about good practices from our country and suggests solutions for continuing training and education of the sports and psychology specialists.

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1. Introduction

In recent years there has been a strong emphasis on the contribution of physical activity - practiced in various forms - on the human health. According to a modern vision, health has several dimensions - emotional, intellectual, physical, social and mental - each contributing to the welfare of a person. In our daily lives, physical activity plays an important role in maintaining and improving health, provided it is based on rules aimed at both the content, and the intensity and frequency of the required physical effort.

Among the professions concerned with the health of the population there are also some professions belonging to the field of sport science and physical education. The complexity of this topic requires an interdisciplinary approach, provided by specialists trained to fulfill the potential of all methods and means that can contribute to the wellbeing

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of the population. As a result of such concerns, we can list specialized fields such as physiotherapy, that promotes physical activity for the prevention and treatment of many diseases, specialists in leisure time, who are optimizing the endurance capacity of individuals in order to improve their quality of life, or the professionals specializing in professional physical activity, who recommend exercises according to the professional effort of their clients.

A comparative analysis of professions that exist in Romania and internationally shows a number of discrepancies. Such is the case of specializations in the field of sport science and physical education, which occur in interdisciplinary areas of this field, and related fields. This paper will refer to the need of specialized skills of those who promote the relationship between physical activity and mental health in the frame of some forms of activity, complementary to the therapeutic activity. While there is an increased interest, at international level, for further specialization, in Romania this specialization does not exist, although some initiatives are illustrated in the curriculum of training for future specialists in the field. To support the need for development of such specialization, and even the introduction of new occupations in the Romanian Standard Occupational Classification System, this paper includes the results of a bibliographic study that we conducted, which provides data and arguments required for this methodological approach.

1.1. Mental health – a critical problem of the modern society

The number of people suffering from depression exceeds 350 million globally, warns the World Health Organization (WHO, 2012). Statistics show that between 7 and 12% of the adult population have mental disorders such as depression or anxiety and needs some form of intervention (drug and/or psychological therapy). Psychiatric illnesses are widespread. In the U.S., 26.2% of the adult population suffers from a serious mental illness. In fact, this is the main cause of morbidity in the U.S. and Canada. (National Institute of Mental Health, 2014)

The situation is not better in Europe, as shown in the Eurobarometer - Mental Health (European Commission, 2010). Data shows that 27% of the adults in the EU have mental issues, and they are likely to be responsible for the huge number of suicides in the EU, i.e. 55.000 people deceased annually, twice as many victims as those caused by road accidents. The most common issues are depression and anxiety. Moreover, it is expected that by 2020 depression will be the leading cause of illnesses in the developed world.

20% of Romanian citizens are experiencing mental disorders, according to a recent study conducted by the Romanian Mental Health League (2008). The League draws attention that this condition is more common than diabetes. Statistics for Romania indicate that depression affects more than three million Romanians, about 15% of the population. A high frequency of mental illness is recorded every year (i.e. 8.2% from the adult population, during 2007). (Florescu et al., 2009)

In this framework, lifestyle changes and, in particular, the practice of regular physical activity has become an alternative or complementary intervention to psychotherapy and drug therapy.

1.2. Physical exercise for mental health

Literature presents the contribution of physical activity to the optimization of physical health of individuals with different ages. (Happel, Davies, Scott, 2012). In the 80s, researchers suggested that physical fitness training could lead to an improved mood, self-concept, and work behavior; the evidence was less clear as to its effects on cognitive functioning, although it does appear to bolster cognitive performance during and after physical stress. (Folkins, Sime, 1981).

SIMHA (Shanghai International Mental Health Association) describes the point of view of Muhlheim (2009), a psychotherapist who promotes the inclusion of physical exercise in the daily routines of his patients, and makes specific recommendations on the content, volume, intensity and frequency. Physical activity may play an important role in the management of medium intensity mental disorders, especially depression and anxiety, if it is practiced based on distinct methodological recommendations. Symptoms of anxiety and panic attacks can be improved by physical fitness training, meditation or relaxation. In general, acute anxiety responds better to physical activity than chronic anxiety. Results of studies conducted over time support the idea that participants engaged in regular physical activity have a better physical health status and based on this the symptoms of mental disorders can be ameliorated.

(Paluska, Schwenk, 2005). Josefsson, Lindwall and Archer (2013) show that most studies highlight the significant increases in a person's wellbeing, following physical fitness training.

Physical exercise may be recommended for people with mild and moderate depressions who are willing, motivated, and physically healthy enough to engage in such a program. Hassmen, Koivula, Utela (2000) concluded that individuals who practice physical fitness training 2 or 3 times a week have a lower level of depression, anger and stress, compared to those who practice less or no physical activity. At the same time, they have a higher sense of social integration and psychological wellbeing. A special category is represented by the studies that highlight the role of yoga exercise on mental health. Ray et al. showed in the 2001 study that after a program of 6 to 10 months conducted with a group of young people (20 - 25 years), participants showed lower scores on anxiety and depression than the control group. However, in the opinion of K. Weir (2011) the introduction of physical exercise programs for patients with mental disorders is not a common practice among psychotherapists.

2. Paper statement

2.1. Aim

In this paper we will focus on the relationship between physical fitness training and mental health, from the perspective of the specialization needs of those who are undertaking a profession in the field of *Sport science and physical education*. Although we can identify clear theoretical and methodological line in the perspective of physical fitness training and mental health, Romania is lacking specific training for this professional orientation. As it strives to answer two questions, 'How to use physical fitness training to improve mental health?' and 'Who can recommend it?', this paper highlights the features of specialist training and possible ways to improve this training in Romania.

2.2. Methodology of physical exercise in the optimization of mental health

The benefits of physical exercise to health are recognized since ancient times, but the actual contribution to optimizing mental health status was brought to the attention of recipients only in the 70s. Although at first there were only isolated and less scientifically verified evidence, specialists chose to place their trust in the practice of physical exercise, so Corbin, Pangrazi (1996) emphasized that "physical activity appears to relieve symptoms of depression and anxiety and improve mood" and that "regular physical activity may reduce the risk of developing depression, although further research is needed on this topic."

In the 90s, McEntee & Halgin (1996) argued that although psychotherapists believe in the value of exercise, only 10% of these were recommending it to the patients. The authors expressed their trust that tighter cooperation between physician/psychologist and specialists in motor activities can lead to more intensive promotion of the physical activity. In the 2000s emerged some organizations that declared themselves more confident that physical exercise has good therapeutic effects on mental health. E.g. American College of Sports Medicine (2000) recommends that adults should exercise 3-5 times per week at moderate intensity, while the 'Physical Activity and Mental Health National Consensus Statements and Guidelines for Practice' document (Biddle et al, 2000) offered clear suggestions regarding the content, dosage and frequency of exercise.

In time, studies have shown evidence that exercise stores a significant potential for balancing mental disorders. The benefits of exercise appear specifically in cases of mild and moderate intensity depression. Physical exercise, combined with psychotherapy, behavioral therapy and medication produce long-term positive effects. (Taylor, Sallis, Needle, 1985). The most common exercises are walking, running, lifting weights, swimming, cycling, dancing and aerobics. The main feature that should be considered before starting any exercise program is the medical consultation, following which the person concerned receives expert guidance on the type of effort and exercises that he/she can practice. Some authors emphasized that while effective, physical exercises have not been showed to reduce anxiety symptoms, as psycho-pharmaceutical products did. (Carek, Laibstain, Carek, 2011)

Based on the psychiatric/ psychological diagnosis, different types of exercises may be recommended (Larry, 1998): For reducing anxiety: best results with "aerobic exercise", after 10 weeks of regular exercise, to those who are low fit to begin with; for those high in anxiety to begin with. For reducing depression: best results after 10 weeks

of regular exercise; when done several times a week; with more vigorous exercise; for those who are more depressed. The antidepressant effect occurs mainly when the exercise program lasts longer than 9 weeks and involves several sessions per week; the exercise session lasts longer than 30 minutes (30 to 60 minutes), moderate and high intensity (aerobic type exercises - running, swimming, cycling) and a greater number of days per week (average of 5 days per week).

2.3. *Training specialists*

Although there is sufficient scientific evidence to support the relationship analyzed in this paper, it seems there is no consensus among experts in the fields of psychiatry, psychology and kinesiology. This is true both internationally and in Romania.

At international level, exercise is promoted mainly in kinesiology, but recognition of this specialization is overdue. The National Institute of Health and Clinical Excellence (2008) (United Kingdom) includes physical exercise in the field of occupational therapy, which can be recommended for mental disorder patients. Therefore, we can say that the issue of training professionals who can use exercise to improve mental health of different population groups illustrates different perspectives.

In about 36 countries (including Argentina, Finland, Mexico, Singapore, United Arab Emirates, Austria, Germany, Spain, United Kingdom, Australia, Greece, Netherlands, Sweden, Poland) there are specialized recreational therapists who work to improve the physical, mental, and emotional well being of patients in a variety of settings (hospitals, assisted living homes, mental institutions, and juvenile detention centers). The intervention aims to develop the interests and skills of the patients including practice of sports, dance, or other sports activities, based on the patient's capabilities. The training of recreational therapists implies a superior level, as it is intended for university graduates (bachelor degree).

In most of the European countries exercise associated to psychotherapies is recommended by psychiatrists, psychologists, family doctors, who work in interdisciplinary teams with specialists in kinesiology. For instance, in Great Britain, some universities offer 3-year training programs for this kind of vocational training. Considering exercise as recreational means, specialists searched for mental health programs are often required to have a background in physical therapy or psychology. (British Association of Sport and Exercise Sciences, 2014)

In the U.S., qualified personnel is recognized by the National Council for Therapeutic Recreation Certification (NCTRC), who is requesting a bachelor's degree, specialization in this field and passing a national exam.

Although internationally, we can identify a clear specialization of the sports professionals, this category is not found in Romania. Specialists who graduated in physical education and sport in Romania capitalize the effects of exercise, including those in terms of health status. There are fitness clubs promoting, advertising and describing this kind of effects. However, they are not presented as main effects but only as secondary effects. In other words, exercise programs designed exclusively to optimize mental health are not being promoted.

Some Romanian faculties in the sport field included this topic within other courses. For example, the National University of Physical Education and Sports (Bucharest) developed a course, 'Design and planning of leisure activities', which included a few hours of theory and practice about physical exercises and mental health; the Faculty of Physical Education and Sports from Babes-Bolyai University (Cluj-Napoca) has also a topic within a course, 'Psychological therapy in physiotherapy'. There are examples that support the idea that in our country there is no substantial interest towards introducing disciplines intended solely for physical exercise and mental health. We believe that the therapeutic potential of exercise should be better used and represented in the training of specialists.

Whether they are licensed physical education and sport graduates or physiotherapy graduates, these professionals should be familiarized with the intervention strategies that assist the therapies recommended by psychologists/psychiatrists. This can be done by different disciplines within bachelor and master degree programs, postgraduate training and development programs, or by master degree programs.

3. Conclusions

Answering the paper's questions, we wanted to emphasize that although the literature shows a consistent methodology on curative practice of exercise for mental disorders, the Romania vocational training market does not offer consistent professional services in this area.

The scarce information received by physical education graduates, fail to define the profile of a specialist, recognized by other professional categories (physicians, psychologists, occupational therapists). In this regard we believe that it is necessary to deepen the relationship between physical exercises and mental health, either by individual disciplines within master programs of the relevant faculties, and completing the occupational profile of graduates in this field, with consistent skills, or by introducing in the Romanian Standard Occupational Classification System a new occupation - recreational therapist, who would have a combination of specialized skills for the maintenance/optimization of mental health through physical exercise. Patients would also benefit by the inclusion in the training of psychologists or psychiatrists of training courses aimed at acquiring skills on the use of physical exercises as a complementary treatment for patients with mental disorders of certain kind.

It is desirable that Romanian experts in the medical, psychological, and sport science field would work together to identify an optimal choice of training/professional development, which will contribute to the use of therapeutic exercise in mental disorders.

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